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09/334,375	06/16/1999	MICHAEL J. SIWINSKI	79496WSS	5263

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EXAMINER

MOUTTET, BLAISE L

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Paper No. 13

Application Number: 09/334,375
Filing Date: June 16, 1999
Appellant(s): SIWINSKI ET AL.

MAILED

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GROUP 2800

Norman Rushefsky Reg. No. 25,606
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed April 8, 2002.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

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(3) Status of Claims

The statement of the status of the claims contained in the brief is correct with the exception of the withdrawal of the rejections of claims 50 and 51 under 35 USC 102 as explained in section (11) below.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 1-3, 6, 8-21 and 26-54 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

3713148	Cardullo et al.	1-1973
5266975	Mochizuki et al.	11-1993
6227643	Purcell et al.	5-2001
3580565	Mallory	5-1971

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

1. Claims 1-3, 8-10, 13, 16, 19-21, 26-28, 31, 34, 37-48, 52 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Purcell et al. US 6,227,643 in view of Cardullo et al. US 3,713,148.

Purcell et al. discloses, regarding claims 1 and 19, a printer and printing method comprising

(a) a transceiver (86) operated to transmit a first EM field and sense a second EM field for communicating with a memory element (80) on a paper roll (column 5, lines 53-59);

(b) read/write memory elements (78, 79) provided on ink containing consumables (74 and 77) which communicate with a processor (52) that is in communication with the transceiver (86) (figure 2, column 5, lines 33-59);

(c) the memories having data stored therein uniquely associated with the ink containing consumable (column 6, lines 23-32).

Purcell et al. discloses that the communication links (81, 82 and 83) may take a variety of forms (column 5, lines 38-41).

Regarding claims 8-10, 13, 16, 26-28, 31 and 34 the memory elements (78, 79, 80) attach to the printhead consumable (74), ink containing consumable (77), and print media consumable (81) are alternately polled and communicated with by the processor (52) (column 5, lines 33-41).

Regarding claims 38 and 52, Purcell et al. discloses storing the amount of ink used in the memories (column 8, lines 26-33).

Regarding claim 39, the transceiver (86) and memory elements (78, 79) do not touch and are separated by communication links (82 and 83) as shown in figure 2.

Regarding claim 40, see column 5, lines 47-51.

Regarding claims 41-48, see column 10, lines 10-35.

Regarding claim 53, see column 6, lines 4-23 which teaches that providing hardwired memory information on the cartridges during manufacture assures cartridge identification.

Purcell et al. fails to disclose that the read/write memory elements on the ink consumables are radio frequency transponders as claimed by applicant.

Cardullo et al. discloses a transponder system and apparatus as claimed by applicant (see claims 1 and 3, column 2, line 45 - column 3, line 2 and column 5, lines 15-26).

It would have been obvious for a person of ordinary skill in the art at the time the invention was made to replace the memory elements (78, 79) of Purcell et al. with the transponders shown by Cardullo et al. and use an RF transceiver as the processor (52) of Purcell et al.

The motivation for doing so would have been in order to provide a highly economical and reliable interrogation system applicable under all environmental conditions which requires no internal power source, is physically small in size and can be placed on many different objects as taught by column 2, line 45 - column 3, line 2 of

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Cardullo et al. and as suggested by column 9, lines 41-50 of Purcell et al. regarding a similar transponder placed on a print roll.

2. Claims 6, 11, 12, 14, 15, 17, 18, 29, 30, 32, 33, 35, 36 and 49-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Purcell et al. US 6,227,643 in view of Cardullo et al. US 3,713,148, as applied to claims 8, 13 and 26, and further in view of Mochizuki et al. US 5,266,975.

Purcell et al. in view of Cardullo et al. disclose the claimed subject matter of claim 6, 50 and 51 common to claim 1 as explained above.

Purcell et al. in view of Cardullo et al. fail to disclose that the transponder is coupled to a cleaning fluid consumable or waste consumable in addition to the ink containing consumable.

Mochizuki et al. discloses a printing system with a waste ink/cleaning fluid consumable (23) that sucks ink through the nozzles of an ink jet head (1) to clean the ink jet head and with memory circuits to keep track of the amount of waste ink collected in order to determine when the waste consumable should be replaced (column 2, lines 35-54).

It would have been obvious for a person of ordinary skill in the art at the time the invention was made to include a waste ink/cleaning fluid consumable as shown by Mochizuki et al. in the printing system of Purcell et al. in view of Cardullo et al. and provide the transponders used by Cardullo et al. on these consumables.

The motivation for doing so would have been in order to maintain satisfactory print quality by cleaning out the printhead nozzles as taught by column 2, lines 35-54 of Garcia et al. and communicate and update the amount of waste ink collected using a highly economical and reliable interrogation system applicable under all environmental conditions as taught by column 2, line 45 - column 3, line 2 of Cardullo et al. and column 9, lines 41-50 of Purcell et al.

3. Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Purcell et al. US 6,227,643 in view of Mallory US 3,580,565.

Purcell et al. discloses a printer with a transceiver (86) which communicates with a transponder (140) placed on a print roll (128) (figure 9) in which the transponder includes a memory element (140) which stores information about the print media (column 9, lines 34-43).

Purcell et al. fails to disclose a stack of discrete sheet like members with a transponder coupled to one of the sheet like members.

Mallory teaches that print rolls and discrete print sheets are art recognized equivalents (column 1, lines 6-25).

It would have been obvious to a person of ordinary skill in the art to use a series of discrete receiver sheets with a transponder coupled to one of the sheets as taught by Mallory in place of the print roll used by Purcell et al.

The motivation for doing so would have been in order to eliminate the need for a stock cutter and lower the cost of the printer of Purcell et al. as taught by column 1, lines 14-16 of Mallory.

(11) Response to Argument

The 35 USC 102 rejection of claims 50 and 51 is withdrawn. The examiner was persuaded by appellant's argument contained on page 16 of the appeal brief (paper no. 12) that Hassett US 5,347,274 fails to anticipate claims 50 and 51 because the waste container is not loaded into the printer.

Appellant's remaining arguments have been fully considered but they are not persuasive as explained below.

The appellant has argued regarding claims 1-3 that:

- a) Purcell et al. fails to teach the use of a code in the first electromagnetic field to determine whether data is read or written to memory.
- b) Purcell et al. fails to teach why the transponder associated with the media roll would be useful in association with an ink consumable.
- c) Purcell et al. and Cardullo et al. are in different fields of endeavor and thus non-combinable.
- d) There is no suggestion in Purcell et al. or Cardullo et al. that the transponder on the ink containing consumable receives power only from the electromagnetic field.

Regarding appellant's first argument the examiner points out that Cardullo et al. was provided to teach this aspect (see column 5, lines 15-25).

Regarding appellant's second argument regarding lack of motivation the examiner directs attention to column 5, lines 38-41 of Purcell et al. which explains that the communication links between the memory device 79 on the ink consumable 77 may take a variety of forms, column 9, lines 47-50 of Purcell et al. which explains that storing and reading information on a transponder tag placed on one consumable (i.e. the paper roll) is analogous with storing and reading information on an ink containing consumable and column 2, lines 45 - column 3, line 2 of Cardullo et al. which teaches that using the transponder memory device provides the advantage of a memory device with no internal source of operating power and which is accurate and reliable under all environmental conditions and which is of small size. Thus replacing the memory devices 78, 79 of Purcell et al. with the transponder of Cardullo et al. provides the advantage of a memory device with no internal source of operating power which is accurate and reliable under all environmental conditions and of small size.

Regarding appellant's third argument the examiner directs attention to column 5, lines 38-41 of Purcell et al. which teaches that the communication links 81, 82, 83 between the memory elements 78, 79 and 80 and the processor 52 may take a variety of forms. Purcell et al. is particularly interested in communication between consumables (i.e. the ink cartridge 77, printhead cartridge 74 and print media roll 130) in an ink jet printer which are small in comparison to the size of the printer (see column 1, line 55-column 2, line 5 of Purcell et al.). As taught by column 2, line 45 - column 3, line 2 of

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Cardullo et al. a communication system is provided consisting of memory elements which communicate via an electromagnetic link which Cardullo et al. teaches may be provided on many different objects and used in a number of different industries (column 2, lines 52-63 of Cardullo et al.) Since both Purcell et al. and Cardullo et al. are concerned with communication systems between objects they would both be considered in the field of endeavor of communication between memory components. However even if Purcell and Cardullo et al. were not considered to be in the same field of endeavor Cardullo et al. is clearly reasonably pertinent to the problem with which Purcell et al. was concerned (i.e. the application of communication links between memory elements on objects).

The appellant has argued regarding claim 8-10, 13 and 16 that plural transponders are not rendered obvious by the combination of Purcell et al. in view of Cardullo et al.

The examiner maintains the rejection for the reasons given in the applied rejection and as explained above regarding claim 1 since utilizing plural transponders is a natural consequence of the obviousness of utilizing a transponder memory element as taught by Cardullo et al. on either or both of the ink cartridge 77 and print cartridge 74 of Purcell et al. since Purcell et al. already provides one transponder on the print roll.

The appellant has argued regarding claims 19-21 and 52 lack of motivation in the combination of Purcell et al. and Cardullo et al.

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The examiner has previously addressed these argument as explained above regarding claims 1-3.

The appellant has argued regarding claims 26-28, 31 and 34 that plural transponders are not rendered obvious by a combination of Purcell et al. and Cardullo et al.

The examiner maintains the rejection for the reasons given in the applied rejection and as explained above regarding claim 1 since utilize plural transponders is a natural consequence of the obviousness of utilizing a transponder memory element as taught by Cardullo et al. on either or both of the ink cartridge 77 and print cartridge 74 of Purcell et al. since Purcell et al. already provides one transponder on the print roll.

The appellant has argued regarding claims 37-48 that a combination of Purcell et al. and Cardullo et al. fails to produce the limitation that the transponder receives energy from the first electromagnetic field as the only energy for powering the transponder.

The examiner directs attention to column 2, lines 45-51 and column 3, lines 60 - column 4, line 3 of Cardullo et al. which teaches that the transponder requires no internal source of operating power and is powered by the electromagnetic field solely.

The appellant has argued regarding claims 47 that a combination of Purcell et al. and Cardullo et al. fails to produce a memory that stores sensitometric data.

The examiner directs attention to column 2, lines 33-40, column 8, lines 26-32 and column 10, lines 9-35 that teach the storage of the sensed ink level in memory as well as the detection and utilization of several other sensed parameters (temperature, humidity, ink type, media type).

The appellant has argued regarding claims 53 that a combination of Purcell et al. and Cardullo et al. fails to produce the limitation that the transceiver is blocked from overwriting certain stored data in the memory.

Purcell et al. teaches providing a fixed area on the memory device of the ink/print cartridge for identification data stored at the time of manufacture (column 6, lines 4-23).

The appellant has argued regarding claims 6, 11, 12, 14, 15, 17, 18, 29, 30, 32, 33, 35, 36 and 49-51 that plural transponders are not rendered obvious by a combination of Purcell et al. in view of Cardullo et al. and further in view of Mochizuki et al.

The examiner maintains the rejection for the reasons given in the applied rejection and as explained above regarding claim 1 since utilizing plural transponders is a natural consequence of the obviousness of utilizing a transponder memory element as taught by Cardullo et al. on either or both of the ink cartridge 77 and print cartridge 74 of Purcell et al. since Purcell et al. already provides one transponder on the print roll.

The appellant has argued regarding claim 54 that a transponder on plural cut sheets is not rendered obvious by a combination of Purcell et al. in view of Malloy.

It would have been obvious to a person of ordinary skill in the art to use a series of discrete receiver sheets with a transponder coupled to one of the sheets as taught by Mallory in place of the print roll used by Purcell et al.

The motivation for doing so would have been in order to eliminate the need for a stock cutter and lower the cost of the printer of Purcell et al. as taught by column 1, lines 14-16 of Mallory.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Blaise Mouttet

Bm

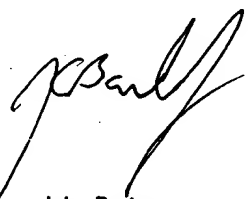
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